

ABSTRACT

Disclosed is a method and system for reducing the formation of metal catalyzed side-reaction byproducts formed in the feed vaporization and introduction system of a methanol to olefin reactor system by forming and/or coating one or more of the heating devices, feed lines or feed introduction nozzles of/with a material that is resistant to the formation of metal catalyzed side reaction byproducts. The invention also may include monitoring and/or maintaining the temperature of at least a portion of the feed vaporization and introduction system and/or of the feedstock contained therein below about 400°C, 350°C, 300°C, 250°C, 200°C or below about 150°C. The temperature can be maintained in the desired range by jacketing at least a portion of the feed vaporization and introduction system, such as at least a portion of the feed introduction nozzle, with a thermally insulating material or by implementing a cooling system.